## IAP20 Residentition 20 DEC 2005

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (SUPPLEMENTARY SHEET)

International file number PCT/DE2004/001287

Reasoned statement with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

- 1. Reference is made to the following document:
  - D1: US 4,390,841 A (GOODSON, RAYMOND E. ET AL.), June 28, 1983
- 2. The present patent application does not meet the requirements of Article 33(1) PCT because the object of Claims 1 and 6 is not novel as defined by Article 33(2) PCT.
- 2.1 Document D1 discloses the following with respect to Claim 1 (the references in parentheses refer to this document):

Method for predicting a remaining lifetime of an electric energy storage mechanism, in particular a battery in a motor vehicle (abstract and column 5, lines 58 to 63), wherein

- the remaining lifetime is determined by extrapolation (column 5, lines 61 to 63) with the help of a mathematical model of the energy storage mechanism (abstract) and
- this remaining lifetime is defined as the time until reaching any specifiable limiting values for the minimum efficiency or minimum storage capacity and the remaining lifetime is indicated (column 5, lines 58 to 63) and

- when levels fall below a preselectable threshold value for the remaining lifetime, a warning is output (column 6, lines 34 to 37 and column 5, lines 61 to 63).
- 2.2 The argument from paragraph 2.1 also applies accordingly to the object of the independent Device Claim 6.
- 3. The patent application does not meet the requirements of Article 6 PCT because Claims 1, 2 and 5 are not clear.
- 3.1 The term "extrapolation with the help of a mathematical model" which is used in Claim 1 states that first, a mathematical model is used to determine the state of an energy storage mechanism and second, an extrapolation is performed (i.e., a determination of a value outside of a range of known values). It is possible to determine the remaining lifetime only by extrapolation.
- 3.2 The reference to "the parameters of the energy storage mechanism" in Claim 2 is unclear because the term has not been defined in Claim 1, to which Claim 2 refers.
- 3.3 The term "... real values" used in Claim 2 is vague and unclear and leaves the reader uncertain about the meaning of the respective technical feature.
- 3.4 The reference to "the particular application" in Claim 5 is unclear because the term has not been defined in the claims to which Claim 5 refers.
- 4. The independent Claims 2 through 5 do not contain any features which in combination with the features of any other claim to which they refer would meet the requirements of PCT with regard to novelty (Article 33(2) PCT) and/or inventive step (Article 33(2) PCT). The reasons for this are as follows:

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The additional features of Claims 2 through 5 are disclosed in D1 (Article 33(2) PCT); see the following passages in this regard:

- Claim 2: column 3, lines 31 to 40
- Claim 3: Figure 3 and Figures 1, 16
- Claim 4: Table 1
- Claim 5: column 5, lines 58 to 63 instead of the current discharge rates a discharge rate for any other application may of course also be used.